

STATE OF MONTANA MONTANA DEPARTMENT OF TRANSPORTATION JOB PROFILE

X UpdateFormal Review

Date Submitted 4/26/2011

SECTION I - Identification					
Working Title: Engineering Contract Specialist	Department: Department of Transportation				
Job Code Number: 172916	Division & Bureau: Engineering Division Contract Plans Bureau				
Job Code Title: Engineering Contract Specialist	Section & Unit: Contract Plans				
Pay Band: 6	Work Address: 2701 Prospect Avenue Helena, Montana 59620				
Position Number: 31008	Phone: 406-444-6284				
FLSA Exempt X FLSA Non-Exempt	Non-Union X MPEA Blue Collar				
Profile Completed By: Suzy Price	Work Phone: 406-444-6211				

Work Unit Mission Statement or Functional Description:

The Highways and Engineering Division prepares projects for bidding and coordinates highway construction. The division is made up of the Materials, Construction, Right-of-Way, Bridge, and Preconstruction Bureaus; the CADD Systems and Engineering Management Support Sections, and five District Construction Offices in Missoula, Butte, Great Falls, Glendive, and Billings for budget and workforce purposes.

The Construction's Contract Plans Bureau lets to contract all highway projects in Montana's diverse and complex highway construction program. The Contract Plans Bureau completes and produces final engineering documents, plans, specifications, and estimates; advertises, amends, lets to contract, and recommends award of contracts; and completes the award process for a multitude of civil engineering and highway construction projects for the Department. The Bureau also maintains and distributes standard drawings, plan holders lists, standard road and bridge specifications, and posts to website. The Bureau is also responsible for revising, maintaining, and updating the suite of Transport software and other automated systems associated with the contract letting process.

Describe the Job's Overall Purpose:

This position serves as an Engineering Contract Specialist within the Construction Contract Plans Bureau and is responsible for creating contract documents, and analyzing, evaluating and editing plans, and specifications to ensure technical integrity; ensuring compliance of plans and specifications with Department, State, and Federal requirements; and ensuring the overall cost-effectiveness of major statewide construction projects through careful analysis of final contract documents. The position also coordinates letting of bid packages, provides technical assistance to contractors and department staff, and performs a variety of other duties as assigned. The position reports to the Contract Plans Section Supervisor through the Lead Engineering Contract Specialist (#31010) and does not directly supervise other agency personnel.

SECTION II - Major Duties or Responsibilities

This section should be a clear concise statement of the position's major duties and the approximate percent of work time for each duty

% of Time

A. ENGINEERING CONTRACT DEVELOPMENT AND EVALUATION 70%

- 1. Compiles and develops comprehensive bid packages from a variety of design units (Road, Bridge, Traffic, Environmental, Hydraulics, Consultant Design, etc.), Assess plans and specifications for overall project constructability and suitability for bid letting according to Department, State, and Federal requirements. Identifies technical design and/or contract deficiencies (e.g., design flaws, errors in pay items, etc.) within documents, plans, specifications, and estimates; develops alternatives and solutions; and coordinates with agency engineering, design, and/or legal staff to evaluate options and develop solutions.
- 2. Determines the impact of proposed changes relative to project costs, letting schedules, State and federal requirements (e.g., standards, funding, contracting, etc.), and other issues. This involves analysis of plans and specifications, construction site evaluations, and consultations with other engineers, designers, contractors, FHWA representatives, and others as necessary to develop reasonable impact projections.
- 3. Evaluates planned and active project sites, materials, samples, and documentation to assess process effectiveness, proposed changes, and project requirements related to contract evaluation and letting processes. Develops reports and recommendations as requested and incorporates findings into bid evaluations and special provisions.
- 4. Develops special provisions as necessary to explain and justify alternatives, anticipate impediments to federal approval, and resolve problems prior to FHWA review. Ensures that special provisions account for consequential impacts of changes (e.g., new pipe may affect dirt work, bidding quantities, prices, etc.) and meet State and federal requirements.
- 5. Develops accurate final engineering estimates to establish reasonable rates that reflect the anticipated cost of the project, quality standards, and other specifications for construction and maintenance materials and the cost basis for award or rejection for the project. This involves evaluating and analyzing historical pricing trends, proficiency in using Transport Estimator Highway Construction Cost Estimation System, project scope, project type, material quality and availability, transportation costs, contractor operations, and anticipated prices. Determines cost allocations, Federal aid work type codes for multiple projects, funding splits, and federal aid

- participation through analysis of agreements and funding sources to ensure equitable division of costs while maximizing Federal funding.
- 6. Creates bid packages for advertising and bid letting. Conducts quality assurance reviews of all data to verify plans, specifications, special provisions, estimates, compliance, and related issues; identifies and resolves problems; and creates electronic bid files.
- 7. Determines cost allocations, Federal aid work type codes for multiple projects, funding splits, and federal aid participation through analysis of agreements and funding sources to ensure equitable division of costs while maximizing Federal funding.

B. <u>ENGINEERING CONTRACT COORDINATION AND LETTING</u> <u>25%</u>

- Coordinates with FHWA to explain and justify proposed changes related to materials, standards, timelines, and other issues. Evaluates FHWA responses to develop and recommend design changes that incorporate Department and Federal requirements. This requires the position to develop solutions and alternatives to ambiguous and often conflicting requirements related to materials (e.g., quality, cost, availability, etc.), value engineering proposals (e.g., alternative surfaces, split savings, etc.), and a range of other considerations.
- 2. Coordinates public bid lettings and processing of bid proposals to ensure compliance with Department, State, and federal requirements. Verifies all calculations included in bids and proposals (e.g., unit prices, total bid amounts, signatures, bonds, addenda, etc.), ensures that proposals comply with bidding instructions, and identifies non-responsive bids. Loads bids electronically to the Transport Letting and Award software.
- 3. Responds to advanced technical and procedural inquiries from contractors, local government officials, members of the public, and others on issues related to bid letting procedures, standards, specifications, specific projects and special provisions, and a range of other issues referred by other Section and Department staff.
- 4. Develops and recommends new functions, operations, and applications for electronic bidding systems to improve the integrity, efficiency, and cost-effectiveness of bid evaluation and letting processes. This involves assessing existing system functions, operations, capabilities, and limitations; evaluating Department bid evaluation and letting processes, State and Federal requirements, and contractor needs; and proposing new applications for electronic bidding systems. Install, operate, and maintain Transport Modules; Estimator, Proposal and Estimate System, Letting and Award System, and Bid Analysis Management System-Decision Support System which are the foundation of Site Manager Module, for project construction.
- 5. Provides consultation and technical expertise to Department personnel regarding contract administration issues, engineering estimates, bid review and letting processes, and a variety of other issues affecting bid review, letting, and award. This includes consultation and collaboration with Department managers, engineers, designers, legal staff, information services personnel, and others as necessary to explain and clarify various issues.
- 6. Coordinates with Department engineering, design, and legal staff as necessary to evaluate proposed changes and resolve deficiencies within contract documents, plans, specifications, and estimates. Negotiates and recommends changes to bid packages, standards, and specifications to ensure consistency between Department and contractor work processes,

measurements, and expectations as well as compliance with State and federal requirements.

C. OTHER DUTIES AS ASSIGNED

05%

This position performs a variety of other duties as assigned by the Contract Plans Section Supervisor and/or Lead Contract Specialist in support of the Department mission and Bureau objectives. This includes exchanging information with consultants, agency staff, and the public; providing training, education, and professional and technical assistance; coordinating special projects; participating in ongoing training and educational programs; and performing a variety of other duties as assigned.

The following duties and/or specific tasks listed under section II above are considered "essential functions" because they require specialized expertise and skill and are the primary reasons the job exists (they must be performed by this position with or without accommodations):

The following duties are considered essential functions because they require specialized expertise and skill and are the primary treasons the job exists:

Duty A: Engineering Contract Development and Evaluation Duty B: Engineering Contract Coordination and Letting

The following mental and physical demands are associated with these essential functions:

PHYSICAL

- Light lifting (less than 10 lbs)
- Carry light items (papers, books, small parts)
- Remaining seated for extended periods of time, with occasional walking; standing; bending
- Travel within the state to project locations, and out of state travel by airline to national conferences and meetings.
- Operating a personal computer
- Communicate in writing, in person and over the phone

MENTAL

- Deal with the public on a regular basis
- Ability to multi-task
- Demands for accuracy in all aspects of work
- Ability to meet inflexible deadlines
- Decision making that affects public health and safety
- Computing arithmetic operations
- Comparing data
- Compiling information
- Analyzing
- Coordinating

			- 3 -
	Does this position supervise others? Attach an Organizational Chart. Attached.	Yes	No
SE	CTION III - Minimum Qualifications - List mir	mum req	uirements for the first day of work.
<u>Cri</u>	tical knowledge and skills required for this p	osition:	
spe roa Bu ma		State con of applicab requires k	tract and funding requirements;
ope	ILLS: This position requires skill in analyzing his rating specialized software applications; and colliences (e.g., professional specialists, contractors)	mmunicati	ng technical information with widely varied
Che	ucation: eck the <u>one box</u> indicating minimum education it day of work:	equiremen	ts for this position for a new employee the
	No education required	Relation	ted AAS/2-years college/vocational
	High school diploma or equivalent	Rela	ted Bachelor's Degree
	1-year related college/voc. training	Rela	ated Master's degree
Ple	ase specify the acceptable fields of study:		
	Acceptable: Civil Engineering, Engineer	ng Techn	ology; other related engineering fields
Oth	ner education, training, certification, or licen	ing requi	ed (specify):
Che	perience: eck the one box indicating minimum work-relate ployee the first day of work:	d experien	ce requirements for this position for a new
	☐ No prior experience required	□ 3 yea	ars

1 year

2 years

Other specific experience (optional):
This position requires 1 year progressively responsible highway engineering design and contract administration related experience.

4 years

5 or more years

Alternative Qualifications: This agency will accept alternative methods of obtaining necessary qualifications.					
✓ 、	Yes □ No				
Alternative qualifications include: Experience may substitute for education on a year for year.					
SECTION IV – Other Important Job Information					
	Fingerprint check		Valid driver's license		
	Background check		Other; Describe		
Other information including working conditions such as shifts, lifting requirements, travel or hours. None Specified.					

SECTION V – Signatures					
Signature indicates this statement is accurate and complete.					
Employee:					
Name:	Title:				
Signature:	Date:				
Immediate Supervisor:					
Name:	Title:				
Signature:	Date:				
Bureau Chief:					
Name:	Title:				
Signature:	Date:				
Division/District Administrator:					
Name:	Title:				
Signature:	Date:				
Department Designee:					
Jennifer Jensen/Designee	Chief Human Resources Officer Human Resources Division				
Signature:	Date:				